# Certification of Behavior Analysts in Minnesota

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In July of 1973, few behavior analysts were employed by the Minnesota Department of Public Welfare (DPW). Civil service screening procedures required psychologists to have traditional diagnostic and clinical backgrounds. The administrators who attempted to implement treatment programs based on operant learning theory were forced to depend on hiring consultants. Treatment programs which utilized aversive or deprivation procedures were reviewed on a case by case basis by the DPW Medical Policy Committee.

By August of 1977, it was possible to identify 95 professionals and 20 paraprofessionals on the DPW payroll who had been hired because of their specific skills in applied behavior analysis (Fields, 1977). Program directors reported plans to convert additional positions to enable hiring of behavior analysts. As of March 15, 1978, the number of immediately available behavioral job openings was 63, including 28 at the Masters or Ph.D. levels. Finally, no job once filled by a behavior analyst has subsequently been converted to enable hiring of a professional with a different set of skills.

There are identifiable factors which contributed to the growth in job opportunities in Minnesota for persons with applied behavior analysis skills. These job opportunities are the immediate result of changes in the human services system. Procedures which enable the identification (or certification) of individuals with appropriate skills, and regulation (or certification) of some applied behavior analysis procedures have both contributed to the desirability of behavior analysts.

The remainder of this paper will clarify the relationship between increased employment opportunities and the issue of certification. Behavior analysts, consumers, and employers of behavior analysts are all interested in certification. Consumers and employers have begun to place controls on both procedures and skill levels of practitioners. Meanwhile, behavior analysts have emphasized the development of program models which must be integrated into existing human service systems if they are to survive. Certification of behavior analysts by employers is one change in the existing system which may permit incorporation of new treatment models. We will review the procedures used to establish a career ladder for behavior analysts in Minnesota, the roles that behavior analysts in the career ladder may fill, and the pressures which cause the label of Behavior Analysts to be perceived as a certificate of skill. Among the sources of pressure is the regulation of aversive and deprivation procedures. This regulation process demands identification of competencies and screening criteria. Finally, the current status and implications of certification will be reviewed.

### *Bureaucratic Barriers to the Growth of Behavior Analysis*

The focus of energy of behaviorally-trained professionals has emphasized the development of model programs which allow single subject training procedures to be implemented with large numbers of clients. Little active attention has been devoted to changing the systems into which such models must be incorporated. Since there have been few routes for hiring professional behavior analysts, employers have frequently chosen to hire consultants to establish behavioral programs or to run staff training workshops. When the consultant moves on, turnover of trained staff rapidly erodes the program.

In this context, certification of behavior analysts may be viewed as a valuable modification of existing human services systems. In order to defend such a proposition, a brief review of the characteristics of tax-supported human services programs is appropriate.

Bureaucracies tend to pay off for keeping things stable. The bias against risk in bureaucracies is a strong force which has its teeth in a relatively punitive review process. As an example, a residential treatment program encounters reviews of resident needs, staffing, health and safety, protection of individual rights, etc. Reviews are conducted by national, state, local and internal procedures. These are all legitimate reviews. They attempt to ensure that individual habilitative treatment planning is taking place, to make sure that special projects are implemented within the law, to ensure that non-union staff are treated fairly, to ensure that union contracts are fully honored, and to be sure that tax money is spent only for those items and activities for which it was appropriated. Regardless of the kind of review—national level, state level, local hospital,

program, or those by outside interest and special people—it is rare for the reviewing agency to be able to provide a positive outcome of their review. Review agencies can provide negative publicity and sometimes eliminate funding, reduce staffing, or even cause the program director to be replaced.

Making changes requires taking risks and the working bureaucrat survives in his job by avoiding risks. This becomes a problem in the following way: The growth of behavior analysis has been focused for the past several years on the development of service models which enable the delivery of single subject treatment procedures to large numbers of clients. In almost any arena where services are provided to an identifiable population of citizens, a behavior analyst has developed or is developing a service model. Many of these model educational, treatment, or prevention programs have been initially developed with federal grant dollars. All of them are dependent on finding state or local support if they are to remain in existence in a particular community. Each model must be incorporated into the framework of an existing bureaucracy. Legislative appropriations fund the services controlled by the various state departments charged with providing human services. A host of policies, laws, rules, regulations, and operating procedures establish the parameters within which any program model can operate. Despite the fact that these procedures or models produce very effective data, it isn't necessarily true that they will be incorporated into the existing Human Services bureaucracies.

In summarizing the situation which has evolved, it seems reasonable to assert the following propositions: First, there has been spectacular growth in the use of the technology based on operant learning theory. Second, in a number of instances, models or replicable implementation systems have been developed. Third, survival or continuing existence of a behavioral program model is controlled by a large number of factors. A punitive review system exists which emphasized analysis of process data rather than outcome information. As a result of the multiple constraints which are placed on treatment programs, program effectiveness data alone are not sufficient to guarantee the continuation or survival of a particular treatment model in any currently existing human services system. The point is simple. Despite the fact that a variety of effective models of behavioral intervention procedures exist and produce strong outcome data, it is unlikely that these models will be incorporated into the existing human services systems. There must be significant changes in the ability of bureaucracies to incorporate new and more effective service models. Strategies for changing existing systems need to receive more attention from behavior analysts. One strategy which may be effective is certification of behavior analysis procedures and/or practitioners.

*Certification as an Issue for Behavior Analysts*

Certification has been a favorite topic of conversation among behavior analysts for several years. At the 1972 Conference on Behavior Analysis in Education at Lawrence, Kansas, a panel of experts (Michael, Bailey, Born, Day, Hawkins, Sloane and Wood, 1972) and some very involved audience participants discussed the training of behavior analysts and the certification of their skills.

Some participants argued that certification was necessary to protect the behavior analysts from repressive regulation that might result from charlatans using behavioral procedures improperly. It was also argued that any certification process would reduce opportunities for behavior analysts to try out new procedures and work with new client populations. In summarizing the outcome of that discussion, Thomas (1972) wrote "As the field continues to grow, we can no longer dismiss lightly mundane issues such as standardized training programs and licensing. The days when it was possible to be on a first name basis with all of the behavior modifiers in the country no longer exist. No longer is it possible to list all of the behavior modifiers by listing the past students of Skinner, Bijou, Baer, Michael, Azrin, and the rest. No longer is it possible to list all of the behavior modifiers by reference to the university from which they were graduated . . . . . ". Thomas then went on to suggest that at the next conference the discussion should continue with the specific objective, "of the discussion being clearly defined as the development of a professional organization whose members are prepared to search actively for solutions to the problem. The need to protect ourselves and the public is real."

Certification became the central topic of conference attention at the 1974 Drake Conference on Professional Issues in Behavior Analysis. The panel discussion and audience participation sessions sounded like an "instant replay" of the earlier conference in Lawrence. Some of the group still felt very strongly that regulation of behavioral procedures would soon be externally imposed as the result of treatment errors made by untrained

persons calling themselves behavior analysts, behavioral engineers, behavior therapists, behavior modifiers, etc. Others asserted that certification of behavior analysts would cost everyone opportunities to work with new client populations and to test new procedures. Some participants argued that certification could not be done on the basis of identified competencies because there was no basis for identifying the relevant competencies. Others continued to support a position that we should establish a program for certifying procedures rather than for certifying people.

A more objective perspective of the activities at the Drake Conference might have changed the focus of the discussions entirely. In spite of the frequency and intensity with which the participants argued about the need for, and dangers of certification, a number of individuals in attendance had already participated in the development of limited forms of certification of either people or procedures. For example, developers of the Achievement Place model at Lawrence had initiated a program of certifying their teaching parents (Braukmann, *et. al.*, 1975) and the Behavior Analysis Follow Through Program was certifying teachers as competent in the use of their classroom procedures (Nelson, Sandargas, and Jackson, 1974).

Not only had the concept of certifying behavior analysts been implemented, the concept of certifying procedures had made active progress as well. A panel of experts had completed their deliberations on the causes of abuses identified in a residential treatment program in Florida. Their report (May, Risley, *et. al.*, 1975) was later published by the National Association for Retarded Citizens.

In spite of the existence of these samples of certification activities, the participants at the Drake Conference and at subsequent Midwestern Assocation for Behavior Analysis (MABA) Conferences in 1975, 1976, and 1977 continued to argue about whether or not certification was a possibility and, if possible, whether it should be done. The complexity and detail of the arguments presented continued to grow until they appeared in the form of a set of recommendations by the Education and Evaluation Committee of MABA at the 1977 conference (Krapfl, *et. al.*, 1977). In a six-page document, this committee summarized the arguments both for and against certification or licensing of persons, certification of training programs, certification of procedures, and boarding of members of MABA.

A somewhat simplified interpretation of the MABA committee's conclusions can still carry the burden of their argument. First, there are positive benefits available in return for submitting to the contraints of a certification process. Second, constraints will be imposed on behavior analysts by others if the group does not establish procedures for regulating its own members. Finally, certification will be less aversive if it is done by behavior analysts than it will be if it is done by others.

There is an important element to note in the committee recommendations. The strength of the rationale is based on the assertion that regulation or certification of behavior analysts will occur. However, there is no indication in the report that limited forms of certification are in existence and that other regulatory efforts are in the final draft form in several states. Perhaps the contingencies which control the development of certification activities appeared obvious to the committee. However, the sources of movement toward certification in Minnesota have been pressures from consumers and employers who may be relatively immune to the concerns behavior analysts have about the development of their profession or personal opportunities. If behavior analysts are to have an organized voice in the development of certification procedures and standards, action should not be delayed.

### *Certification/Regulation of Behavior Analysis as an Issue for Consumers*

Behavior analysis procedures make an easy mark for those who can't or won't discriminate between abusive actions and therapeutic contingency management activities. The persistent overgeneralization of the label "behavior modification" to include psychosurgery, psychotropic drugs, physical restraints, sensory deprivation, etc., has been amplified by newspaper reports (Bailey, 1975). Treatment errors by persons attempting to "modify behavior" through the use of electric shock, time-out boxes, deprivation of meals, slapping, etc. have occurred. As a result of the publicity, action groups have been mobilized. Outstanding among these are the judicial and legislative arms of government and consumer groups such as the Association for Retarded Citizens.

The courts have been leading the movement toward regulation of the activities of behavior analysts. As a consequence of consumer initiated class action lawsuits, courts have imposed

restrictions on the activities of behavior analysts with increasing frequency. Among the restrictions which have been detailed are requirements for due process in the utilization of behavioral procedures, limitations on the duration of time-out, prohibition of isolation except for disease control, and the identification of certain goods and services which had frequently been used as contingent privileges as non-contingent rights guaranteed by the constitution (Budd and Baer, 1976).

Lawsuits by consumers and the resulting judicial decisions have precipitated action in other areas. In order to avoid being the defendant in additional lawsuits, the executive branches of Federal and State government have initiated various controls on utilization of contingency management activities. Examples of this type of activity must include the Federal Bureau of Prisons decision to terminate the Special Treatment and Rehabilitative Training (S.T.A.R.T.) Project for modifying the behavior of unusually aggressive prison inmates. When the bureau became involved in legal proceedings involving the constitutionality of the treatment procedures used, the START project was terminated for "economic reasons" (APA Monitor, 1974). During the same year, the U.S. Department of Justice announced that it would no longer fund behavior modification projects, and the Senate Subcommittee on Constitutional Rights published recommendations called *Individual Rights and the Federal Role in Behavior Modification* (1974). At the state level, we now find guidelines to control the use of behavior modification activities in at least Connecticut (Miller, 1977), Florida (May, *et. al.*, 1975), Ohio (Dardig, 1977), Massachusetts (Ward, 1977), and Minnesota (Thomas, 1977). In addition, information volunteered by individuals requesting copies of the Minnesota guidelines suggests that active efforts to establish guidelines are underway in other states and Canadian provinces. A major impetus for the regulation of behavior analysis procedures has come from judicial decisions which were precipitated by consumers in the form of class action lawsuits.

### *Certification of Behavior Analysts as an Issue for Employers*

Regulation of behavior analysts, however, has not been restricted to the level of federal or state government. Program directors in human services projects have been faced with the problem of meeting the demands imposed by multiple regulations and review agencies. After identifying the program activities which need to be completed, and the program outcomes they desire, program directors have begun to use skills certification as one element of the quality control mechanisms for their programs. Examples of certification of behavior analysts as a basis for maintaining the quality of program services can be found by looking to the Achievement Place program (Braukmann, *et. al.*, 1975) and the Behavior Analysis Follow Through Program (Nelson, *et. al.*, 1974). In both cases, the program directors have developed model service programs, and are replicating these effective service models in a number of sites. In both cases, attempts are made to train personnel to a criterion level of performance in order to ensure a satisfactory performance level of replication projects.

There is an additional source of pressure to certify individuals with skills in behavior analysis. Programs such as those mentioned above have tended to be university based and are primarily in the business of training people. In most human services programs, the support system is a local or state bureaucracy. These programs "in the field" typically are faced with staff and budget constraints which make it impossible to devote a large amount of time to training activities. In such cases, program directors must attempt to hire people who are already trained rather than to hire and then train. Thus in Minnesota, certification of behavior analysts occurred in the form of a series of civil service job descriptions which were linked by competency levels to form a career ladder. The development of a certification process can be seen as a product of the activities of employers who need trained staff to provide services to clients.

### *Procedure Followed in Obtaining Civil Service Approval of the Career Ladder for Behavior Analysts*

Making changes in bureaucracies seems to establish some element of risk for the system or for the administrator who approves the change. Identification of anticipated improvements in service delivery may not provide sufficient incentive to cause a civil servant to approve a change in the existing procedures. Proposals to install the set of job descriptions which make up the Career Ladder for Behavior Analysts were initially presented to the Minnesota Department of Personnel on the basis of the positive outcomes which could be obtained. The proposed career ladder was discussed in terms of the treatment benefits which behaviorally trained personnel could provide to the clients of the Department of Public Welfare. Supportive

arguments were made that training programs currently in existence were turning out program graduates who had the skills needed to implement more effective treatment programs. Next, it was argued that a national survey of behavior analysts had demonstrated the high level of agreement among professionals in the country with regard to identification of the competencies required of people who would be employed within the proposed career ladder (Sulzer-Azaroff, Thaw and Thomas, 1975). It was pointed out that the response cost to the Department of Personnel would be extremely small, since the Minnesota Learning Center staff had already developed job descriptions and performance standards for each level of the proposed career ladder. Finally, it was argued that the Department of Public Welfare critically needed the career ladder because revision in department guidelines for the use of behavior modification techniques required identification of experts in the use of such procedures. Unfortunately, none of these arguments were sufficient either individually or collectively to generate action. The Department of Personnel was receiving complaints from the legislature and the unions about failure to rationalize the system already in existence and, as a consequence, were avoiding the addition of any new classifications.

After almost nine months of telephone calls, and memos which generated polite replies but which did not change the situation, the intervention procedures were changed. A meeting was arranged with appropriate staff from the Department of Personnel and the Program Director of the Minnesota Learning Center. At that meeting, the following argument was made: The Minnesota Learning Center was using behavior analysis treatment procedures, was obtaining outstanding treatment results and was, in fact, already hiring all new staff on the basis of their skills as behavior analysts. The Personnel Department was told that in order to obtain the staff necessary to provide effective treatment, the program director was being forced to manipulate the Civil Service hiring procedures. This was being done by hiring people who had the necessary skills through job classifications for which they were only incidentally qualified rather than through classifications which recognized their major areas of expertise. Obviously, a number of inequities were resulting from hiring staff through employment classifications which did not match their actual job responsibilities and standards. Existing professional level classifications in use by residential treatment units required specific training experiences in such areas as social work or rehabilitation therapy. Consequently, individuals with Master's or Bachelor's degrees in the area of applied behavior analysis found it difficult to qualify for classifications which the organization actually could employ. The immediate result of this problem was that individuals with strong training in applied behavior analysis had to accept classifications at some paraprofessional level in order to rank within the top ten candidates on the lists of Civil Service candidates. This established an obvious injustice in level of pay to the behavior analyst who was employed and, in addition, the remainder of the list of candidates were being treated unfairly. Specifically, it is unfair employment practice to call for a list of job candidates and interview as many as nine other applicants who have come in good faith that they actually do have the skills for which the employer is seeking. It is also unfair to the program director who, as an employer, is forced to "play games" with regulations in order to obtain the staff with which to provide a high quality of service. In describing the existing situation to the staff of the Department of Personnel, the program director indicated that he strongly resented being forced by the Department's lack of responsiveness to take devious routes to obtain necessary treatment staff. He also again indicated that he was ready to make available the work of the Learning Center staff in designing job descriptions (Jackson and Thomas, 1974) and screening materials for the Department of Personnel if they would simply approve the set of classifications. The combination of low response cost to the Personnel Department and the public assertion of their responsibility for an ongoing series of departures from fair employment practices was sufficient in context of the prior memos and phone calls to elicit their approval of the Minnesota Career Ladder for Behavior Analysts.

In reviewing the arguments which were presented, the following elements seem most critical: Residential treatment programs run by the Department of Public Welfare and staffed through the Department of Personnel were employing persons with behavioral skills in various levels of existing program organizations. Since there were no existing classifications for the employment of behavior analysts, a variety of existing classifications were being manipulated. This created a number of difficulties and/or injustices for employees, applicants and employers, and it was being alleged that the Department of Per-

sonnel was directly responsible for the situation. The responsibility was made more salient by the availability of information which indicated that trained personnel were being produced by recognized training programs, that survey data were available indicating a high level of agreement in the field for the identification of relevant skills and that a selection or screening program had already been prepared for the Department's use. The existing set of circumstances suggested the advisability of creating a new set of classifications which would allow treatment programs to employ behavior analysts.

### *Levels of Certification: Role of the Behavior Analyst Career Ladder in the Minnesota Human Services Bureaucracy*

The organizational levels within the residential treatment component of the Minnesota Department of Public Welfare are described in Figure 1. The system is relatively complex and at least 11 layers of staff can readily be defined. The top three levels include the Commissioner, the Assistant Commissioner for Residential Services and the Chief Executive Officers of the state hospitals. These three levels are in the "unclassified" component of the Civil Service system in that selection to these positions is not based on standard certification of skills by the Department of Personnel. Program directors, medical directors, and all positions below them in the organization must qualify by meeting predetermined experience, training, or skills criteria.

Within the state hospitals, the design and responsibility for implementation of service programs for each of the client populations is usually vested in the program directors and medical directors. At the next level of the bureaucracy, we find the department heads or supervisors of interdisciplinary treatment teams. Traditionally, hospitals have been organized by departments; however, with the increasing application of program budgeting and management by objectives concepts to the state hospital system, there appears to be an increasing tendency to organize along the lines of interdisciplinary treatment teams. At any rate, below the level of the department or team supervisors, we find middle management positions at one or two levels, depending on the size of the program. In a small

FIGURE I

HUMAN SERVICES ROLES IN MINNESOTA'S DEPARTMENT OF PUBLIC WELFARE RESIDENTIAL TREATMENT PROGRAMS

| Human Services Technician | Human Services Technician (Sr.) | Human Services Specialist - B.A. | Human Services Spec - B.A. (Sr.) | Behavior Analyst I | Behavior Analyst II | Behavior Analyst III |
|---|---|---|---|---|---|---|
| $8,540 - $10,586* | $9,083 - $11,296* | $9,688 - $12,027* | $10,586 - $13,217* | $12,194 - $15,263* | $13,134 - $17,769* | $15,263 - $21,692* |
| Entry level. Requires supervision and direction. | Promotional step. Experienced in providing residential care. Can work with only occasional supervision in providing residential care. Acts as lead worker for lower level staff. Requires continuous supervision in treatment activities. | Entry level or promotional after two years. Can perform treatment activities but needs regular supervision and direction. Does not make treatment procedures decisions. Does not supervise treatment activities. Can be lead worker for residential services staff. | Promotional level. Can perform treatment activities with occasional supervision. Does not define treatment programs. May act as lead worker in implementing treatment programs. | Entry level. May supervise paraprofessionals in providing residential and/or treatment services. May define treatment procedures under regular supervision of experienced professional. SKILLS: Behavioral Observation; Measurement; Communication; Training; Administration; Research; Ethics; Law & Philosophy; Design of Treatment Procedures. | Promotional. Two years as BA I plus provides on-the-job evidence of meeting performance criteria for BA I at 90% level. | Entry level. Skilled professional able to operate without regular supervision or feedback. SKILLS: Behavioral Observation recording and contingency specification; Measurement; Communication; Training; Consulting; Administration; Research; Assessment goal formulation & targeting; Ethics, Law & Philosophy; Behavioral Procedures; Design of Treatment Programs. |

← TECHNICIAN → ← PARAPROFESSIONAL → ← PROFESSIONAL →

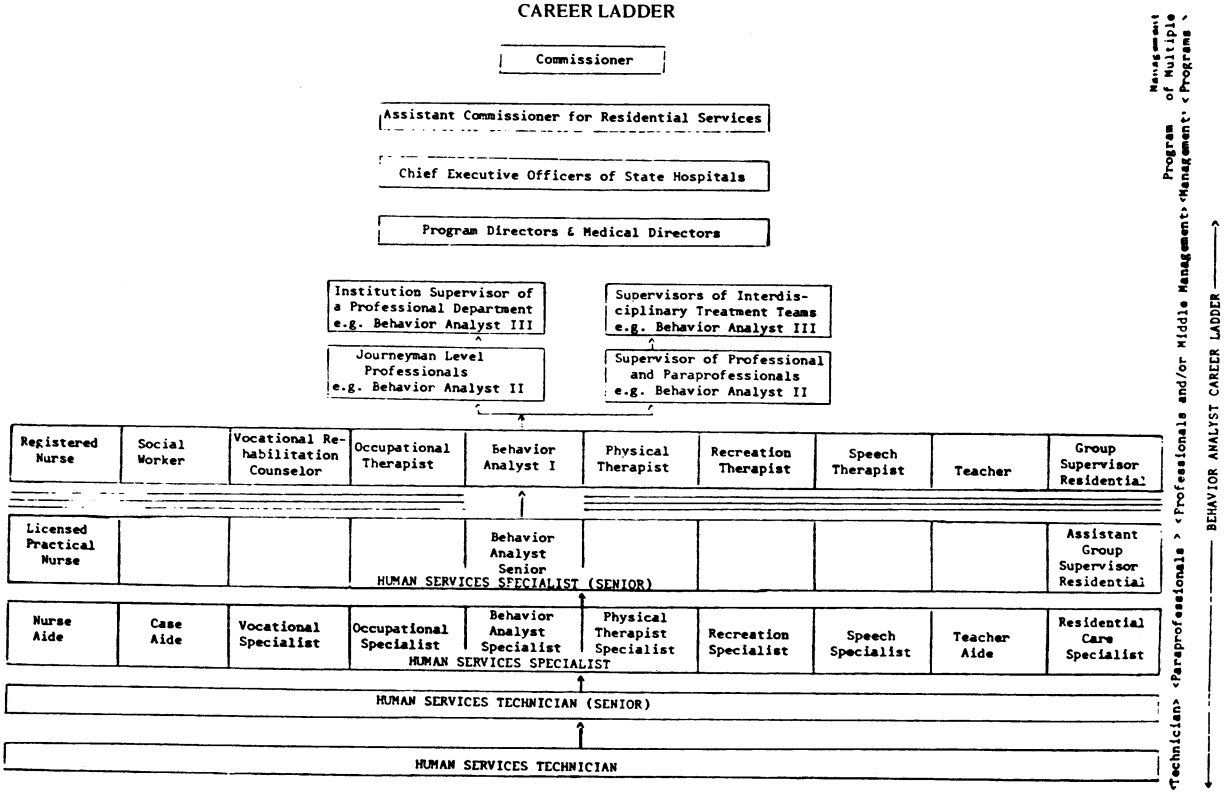
* Salary figures shown are for January - June 1978. Cost of living adjustments are added to these ranges at 6 - 12 month intervals.

program such as the Minnesota Learning Center which utilizes only 57 staff, treatment team supervisors directly supervise the entry level professionals who act as shift supervisors. These front line professionals are individuals who have the skills to function as nurses, social workers, occupational therapists, physical therapists, teachers, etc. Traditionally, these persons have been hired on the basis of a college degree and certification that they are professional in some area. Below the professional levels, the remainder of the bureaucracy is made up of paraprofessionals and technicians. These bottom four levels of the bureaucracy make up the bulk of the individuals who are employed. Completion of job requirements, identified training activities, and a minimum time in grade at each of the bottom three levels will allow any employee to progress to the level of Human Services Specialist Senior. This career ladder for human services employees is designed to enable the development of paraprofessional skill levels in all of the persons who work directly with the program clients.

The impact of the Career Ladder for Behavior Analysts is most strongly seen in the bottom seven levels in Figure 1. The skills and pay ranges for these seven classifications are presented in greater detail in Figure 2. The first two levels shown in Figure 2 are the technician classifications. No skills in behavior analysis are required for entry into the technician classification. Employees at the entry level work under constant supervision. They are taught skills relating to treatment, training and care of the client population with which they work. They may be assigned to perform a variety of tasks which assist in the delivery of client care, recreation, education, etc. In the behavior analysis area such tasks would include observation and data reduction. Upon completion of specified training, experience, and performance criteria, employees are eligible for promotion to paraprofessional activities. The third and fourth steps of the career

FIGURE 2

MINNESOTA BEHAVIOR ANALYST CAREER LADDER



ladder shown in Figure 2 are the paraprofessional steps. An individual can enter the career ladder at the specialist level by demonstrating the ability to pass a test on one of the possible sepcialty areas (see Figure 1), or by being promoted from a technician position. At the specialist level, the individual choosing behavior analysis as a specialty area is introduced to treatment decision. At the earlier technician levels, decision making was limited to residential care issues. However, as a specialist, the employee begins to actively participate in the delivery of specific treatment procedures and to make decisions about the implementation process. Such decision making is done under the supervision of a professional and the paraprofessional is not responsible for the choice of treatment objectives, nor for the choice of procedures used to reach the treatment objectives. Paraprofessionals are expected to reach skill levels in implementation which will allow them to operate in the delivery of treatment with occasional supervision.

The final three levels of the Career Ladder for Behavior Analysts are considered professional positions and individuals working in these positions hold the title of Behavior Analyst (I, II, or III). The Behavior Analyst I and III positions can be entered from outside the ladder by qualifying through the Department of Personnel testing procedures. The Behavior Analyst II position can be entered only as a promotion. As an entry level professional, the BA I requires professional supervision of work activities. The BA II is considered a "journeyman" level and is allowed to operate with greater independence. The Behavior Analyst III level corresponds to that of an independent practitioner in psychology. An individual in this class may serve as the supervisor of a human services team for the delivery of individualized treatment programs to clients who are considered delinquent, behaviorally disturbed, retarded, aging, or otherwise developmentally disabled. An employee of this class may also provide services other than residential treatment services. Examples of other client services would include training of parents, teacher, foster parents, group home operators, etc. in community settings.

### *Recognition of the Career Ladder as a Certification Process*

Initially the development of the Career Ladder concept was seen by its supporters as a straightforward solution to the problem of identifying individuals with skills in behavior analysis. The screening procedures which were developed were relatively easy multiple choice type examinations. It was expected that these screening procedures would be supplemented with intensive screening of job performance skills during the probationary period after hiring. In the year and a half that passed between initial proposal of the concept and the day that an individual was actually paid as a Behavior Analyst, there were few indications that any program other than the Minnesota Learning Center would actually use the classification system. Since a number of skilled behavior analysts were already on staff there, the relative ease of being placed on a list of civil service applicants was not seen as a problem. On-the-job screening could easily be conducted. Further, the fact that individuals could be promoted from paraprofessional to professional positions on the basis of job performance served as a strong motivator to staff to acquire and implement a new set of skills.

Almost immediately after the announcement of the availability of the new hiring classifications, it became apparent that program directors and chief executive officers were viewing the addition of an individual's name to the list of Civil Service applicants as a certification that the individual did indeed have a high level of skill. This perception was greatly amplified by Judge Larson's 1976 ruling in the Welch *vs* Likins "right to treatment" case that behavior analysts could be substituted on a one-for-one basis with psychologists in order to meet the mandated levels of professional staff. The judge then went on to editorialize that because of their special skills in providing training, the behavior analysts were sometimes more useful than psychologists.

The rapid, public, and almost unconditional acceptance of the career ladder as a certification process concerned everyone who helped to develop the career ladder. The screening procedures had been developed in order to identify individuals with some basic skills in contingency management and suddenly everyone with the basic skills was considered expert enough to become involved in the development and supervision of aversive and deprivation treatment procedures. The situation could have developed into a crisis for behavior analysis because at the same time the career ladder was being developed and installed, efforts were begun to make Minnesota regulation of behavior modification procedures less restrictive and more functional.

A brief review of the history of the guidelines reveals that they were established by the Medical

Director (Vail, 1970) of the Department of Public Welfare following highly publicized treatment errors involving the use of "behavior modification" procedures. Those guidelines required Medical Policy Committee review (at the state level) prior to the initiation of any treatment program utilizing aversive or deprivation procedures and local review of positive reinforcement procedures. These guidelines had remained in effect until Assistant Commissioner Loring McAllister initiated a review in 1974. A working committee made up of staff from the Department of Public Welfare and members of the Minnesota Association for Behavior Analysis (an AABT affiliated group) revised the guidelines to exclude most positive reinforcement procedures and to establish local interdisciplinary review committees which are responsible for authorizing and monitoring use of all aversive procedures and procedures involving the deprivation of goods and services to which a client is normally entitled.

Since the initial review, the guidelines have been under continual revision; however, the residential treatment programs have operated under whichever version was current throughout the three-year period. In the process of working through the revisions, the guidelines were taken to public hearing in December, 1975. The public response clearly demanded methods for identifying the competencies of individuals who would be permitted to utilize aversive and deprivation treatment procedures. That is, although the response of the Minnesota Psychological Association was to the effect that experts would be appropriately identified as psychologists licensed in Minnesota at the independent practitioner level, the responses from consumer groups such as the Association for Retarded Citizens clearly demanded the identification of specific competencies. While review of the responses to the guidelines was still underway, Judge Larson issued his opinion that behavior analysts with Master's degrees could be substituted for psychologists in meeting professional staff ratios. The possibility that unqualified individuals might be authorized to utilize aversive and deprivation procedures became a real and present danger. The career ladder was being identified as a certification process, but the skills it identified might not be those appropriate for control of aversive and deprivation procedures.

*Certification of Procedures: Regulation of Activities Involving or Deprivation Procedures.*

The Minnesota regulation which controls the use of aversive and deprivation procedure currently exists in the form of guidelines which must be followed by the residential treatment programs operated by the Department of Public Welfare. There is a continuing expectation on the part of the executive staff of the Department that the guidelines will be presented at another public hearing and will, subsequently, be published as a State regulation (i.e., DPW Rule #39) having the force of law in the area it controls. The current (January, 1977) version of the guidelines is introduced by two broad statements regarding applicability and purpose which read as follows:

> "*Statement of Applicability:* This rule is intended to supersede and replace all former Minnesota Department of Public Welfare guidelines for behavior modification services. The rule applies to the use of aversive procedures and deprivation of goods and/or services in all agencies; hospitals, institutions, schools and programs under the supervision, control or sponsorship of the Department of Public Welfare, and in all agencies funded by the Department of Public Welfare through grant mechanisms, including daytime activity centers, mental health centers and certain day care centers, and in any other agencies dealing with clients for which the Minnesota Department of Public Welfare is responsible. This rule applies to all such procedures regardless of the treatment or educational framework within which they are used and is not limited to methods specifically identified as behavior modification, behavior therapy, or their derivatives.
>
> *Statement of Purpose*: It is the purpose of this rule to provide uniform standards regarding the use and application of aversive procedures and deprivation of goods and/or services in order to protect the rights, welfare, safety and dignity of the client and to ensure adequate professional supervision of such procedures and services.
>
> It is not the purpose of this rule to advocate the use of aversive or deprivation procedures, but to make it possible when other techniques have been used and materially failed to improve the client's behavior. Such procedures must always be part of a comprehensive treatment plan based on positive programming procedures, and may not be used outside of such a plan. Further, aversive and deprivation procedures shall be categorized by level of intensity, including mild, moderate, and intense procedures. Staff of the facility who plan and supervise implementation of such procedures must be certified to use the level of procedure they propose to the review committee."

The statements of applicability and purpose contained in the January, 1977 draft of the Minnesota DPW Rule #39 are clear in their intent to require certification of individuals using such procedures. No exclusions are made on the basis of degrees in psychology, medicine, social work or other professional areas. If services for a client are being paid for by the Welfare Department, the service provider will be required to meet the standards established by the rule.

The standards can be summarized as follows: a)

Skill certification is required for staff; b) Informed consent requirements must be met; c) Withdrawal of consent must be possible; d) The client must be allowed to participate in treatment decisions; e) Positive programming procedures must be attempted before moderate or intensely aversive procedures will be utilized; f) Individual case review is required before a treatment program utilizing aversive or deprivation procedures can be initiated, i.e., no categorical approvals are possible; g) Procedures must be designed for the benefit of the client; h) Procedures must be implemented in the context of a total habilitative program; i) Meal deprivation requires physician consultation; j) Electric shock in conditioning programs requires physician consultation; k) Under no circumstances shall the review committee approve use of procedures which have moderate to high risk of causing permanent bodily harm; l) In recognition of continuing judicial decisions further defining illegal or unconstitutional procedures, no procedures may be approved under this rule which are prohibited by any court whose decisions are binding in Minnesota; m) Authorization must be obtained from the local review committee before treatment begins; n) The local review committee is responsible for approving, monitoring, and continually evaluating use of aversive and deprivation procedures in its agency.

In addition to the scope of application, purpose, and standards, there is an area of general interest particularly related to certification of behavior analysts. The guidelines define four levels of treatment intensity, one of which is excluded from committee review and certification of skills. The class of procedures which is excluded from regulation is called positive programming procedures. Positive programming procedures involve the use of positive reinforcement alone or in combination with benign response reduction techniques and/or instructional procedures. More specifically, benign response reduction techniques include exclusion time out for periods of five minutes or less, contingent observation, social disapproval, and extinction. Instructional procedures involve techniques of rearranging or presenting stimuli from both the physical and social environment to increase the probability of appropriate behavior. Among these procedures are prompting or providing cues, giving instructions or warnings, demonstrating, modeling, suggesting alternatives, graduated guidance, and removing provoking or tempting stimuli.

The remaining three levels involve aversive and deprivation procedures and all require committee review. The definition of these levels is presented from the January, 1977 version of the guidelines.

> "Three levels are identified as mild, moderate, and intense. All three levels require equal consideraton under the local review committee procedures of this rule. Identification of the levels of intensity, however, is intended to enable DPW to establish increased competency requirements for individuals who may propose the use of moderate and/or intense procedures without establishing unnecessary or burdensome assessment and monitoring programs over individuals using procedures which involve few restrictions of client rights and no hazards to the client's welfare.
>
> A. Mild procedures: Included in this level of intensity are procedures which involve the following: 1) Contingent access to, or deprivation of, activities, goods, and services (except food, drink, and all life and health support substances); 2) Time-out from positive reinforcement by removal from view or the room; 3) Overcorrection; 4) Delay or removal of goods and services other than those to which one is entitled; and 5) Restitution. These procedures fall into the mild class of procedures only so long as they do not require manual guidance of the client and can be implemented using verbal or instructional control.
>
> B. Moderate procedures: Included in this level of intensity are: 1) All uses of restitution, overcorrection, fines, time-out, etc. which involve manual guidance or physical control of the client to insure implementation of the treatment procedure. This specifically includes use of physical restraints and required relaxation; 2) Also included in this class are applications of noxious substances, which include but are not limited to noise, bad tastes, bad smells, splashing with cold water, and all procedures which elicit startle responses; 3) The final subclass in this category are all instances of the use of extinction procedures directed toward target behaviors which are health threatening.
>
> C. Intense procedures: Included in this class of procedures are those treatment activities which require special training, equipment, procedures, or interdisciplinary monitoring to insure the protection of the client while treatment is in progress. This includes: 1) Electric shock used in aversive conditioning; 2) Slapping or striking; 3) Deprivation of food, water, or other life support substances; and 4) All other aversive and deprivation procedures not included in the mild and moderate categories above."

### *Relevant Competencies and Screening Criteria for Persons Using Aversive and Deprivation Procedures*

Two elements contributed most strongly to the need to improve screening procedures used to identify behavior analysts. The first element was the consumer organizations responses to the public hearing in December, 1975 on guidelines to control the use of aversive and deprivation procedures. Consumers demanded identification of specific competencies. The second element was Judge Larson's (Welch *vs.* Likins, April, 1976) decision

that not only could behavior analysts at the Master's level be substituted for psychologists but, in addition, that because of their training they could be more useful to clients.

The first set of screening procedures developed for the behavior analyst career ladder was predicated on the assumption that intense probationary screening would take place. The procedures were not capable of discrimination between applicants who had the verbal ability to describe a positive reinforcement program and professionals with sufficient skill to implement an aversive program without endangering the client or violating the client's constitutional rights. Consequently, the Larson ruling established the clear possibility that a local review committee would designate as expert individuals who had qualified as Behavior Analysts III's on the early screening system. The executive staff of the Department of Public Welfare reviewed the situation and agreed that funds could be set aside for the Minnesota Learning Center staff to conduct a survey of professionals who had used aversive and deprivation procedures in order to get their assistance in identifying critical competencies.

Subsequently a survey was conducted. The survey items were based on the earlier work of Sulzer-Azaroff, Thaw, and Thomas (1975) and on the competencies defined within the Career Ladder for Behavior Analysts (Jackson and Thomas, 1974). The results of the survey became the working material for a task force composed of nationally recognized experts (Beth Sulzer-Azaroff, Travis Thompson, and William Farrell), Minnesota Learning Center staff, and a representative of the Minnesota Department of Personnel. During a three-day working session, the results of the survey were reviewed and the critical competencies selected from among those for which there was little support. The resulting list of competencies had a high order of professional support (Grimm, Reitz, Grimm, and Thomas, 1977). Unfortunately, even though the competencies were strongly supported, the criteria for assessing them were the object of much disagreement among the survey respondents. The criteria were revised to incorporate the relevant comments and suggestions and a second survey was conducted. The results of the second survey indicated a satisfactory level of agreement with regard to the suggested criteria. In particular, most respondents rated the criteria as satisfactory to excellent but they also included suggestions for improving them. When the conflicting suggestions had been cancelled out, it was clear that no further changes were indicated (Grimm, Reitz, Grimm, and Thomas, 1977b).

Since the Personnel Department had been involved in the discussions of competency and criteria identification, the screening procedures for entry into the Behavior Analyst III position were revised immediately after the results of the second survey became available. A second revision of the screening procedures is planned for the Spring of 1978. The planned revision will incorporate a series of simulation tasks designed to better approximate problems face in on-the-job performance.

### *Current Status of Minnesota Certification Procedures*

Certification in Minnesota has developed along two lines. Certification by regulation of procedures has identified a subset of positive programming procedures which may be utilized by anyone. This set of guidelines has also established review procedures which enable the use of aversive and deprivation procedures when they are appropriate for an individual client.

The second certification procedure was initiated as a series of Civil Service job classifications. These classifications have enabled employers to hire individuals with skills in applied behavior analysis. Because of rapid employer acceptance and Judge Larson's public labeling of the positions as sometimes more valuable than traditional psychologists, the public residential treatment programs are hiring qualified candidates as rapidly as they are placed on the list of available applicants.

There are still problems to be overcome. The regulation which controls use of aversive and deprivation procedures must return to public hearing before it can extend its umbrella of protection to clients receiving services outside of the state hospital system. Program directors, chief executive officers, assistant commissioners, and the department's medical director have all spoken strongly for moving the rule on to final promulgation. The Department of Public Welfare has delayed in returning the rule to public hearing. The official reason is reported difficulty in establishing a satisfactory definition of informed consent. The unofficial information network (i.e., the "grapevine") alleges that the delay is the result of objections by the commissioner's staff assistants and the deputy commissioner based on the cost of funding the review committees and of monitoring implementation of the rule.

*State Licensing of Behavior Analysts as Service Providers*

A third variation on certification has been initiated in Minnesota. The Minnesota Association for Behavior Analysis submitted an application for licensing of behavior analysts as private service providers. After a year of committee meetings and two public hearings, the proposal was rejected. The grounds given for rejection were that behavior analysts did not constitute an identifiable professional group and that the license would be for a set of techniques which would require already-licensed professions to obtain a second license in order to use the procedures. At the public hearings, the testimony of the psychiatric and psychological associations was most persuasive in leading the committee to reject the license application. It is still possible to submit the application to the legislature as a bill. Sympathetic senators and representatives can carry the process to that point. However, the lobby of the medical profession is well coordinated and it is unlikely that enough votes can be carried to get a licensing bill passed into law in the immediate future.

*Implications*

Behavior analysts must identify procedures for improving the viability, replicability and desirability of models of behavioral intervention. Where an attempt is made to implement a "pure" behavioral program, an "expert" in behavioral techniques is hired, usually as a consultant. The expert is then given the task of organizing the program and developing a series of training activities which will produce a high level of competence in the staff. This skill must then translate into a successful demonstration of the efficacy of behavioral procedures. Later, the consulting money is exhausted or the expert moves on. Turnover in staff at the level of program implementation then rapidly erodes the number of available trained personnel relatively quickly and we may find deteriorating effectiveness in program services. The work of the expert has convinced a few more administrators and line staff that behavioral procedures can help them do a better job. Unfortunately, there has been no change in the system which will help to maintain the existence of the effective program model.

In contrast to the frequent pattern of development and deterioration of behavioral programs, a deliberate attempt to alter the human services system has been established in Minnesota. Changes have been made in the human services system which give real hope to the idea of effective maintenance of behavioral programming. The particular change which allows us to make this prediction is a series of Civil Service job classifications in the form of a career ladder for behavior analysts. The availability of the Career Ladder for Behavior Analysts is allowing program directors to initiate behavioral programs with confidence that they will be able to identify skilled replacements when staff turnover occurs. The problems of the human services system in Minnesota should not be greatly different than the problems other states encounter. Consumer pressure has led to a series of court decisions which subsequently have generated efforts by the executive branches of state and federal government to regulate behavior analysts. The regulatory agencies must either prohibit sensitive activities entirely or establish procedures for identifying the competencies of personnel who will be accountable for correctly implementing the targeted procedures. When procedures involving interference with constitutional rights are implemented, the prudent executive will make every effort to protect himself and his system.

Behavior analysts can continue to meet at conferences to debate the sins and virtues of certification indefinitely. The Minnesota experience, however, should suggest that there are contingencies in operation which are forcing some sorts of certification into existence. The choices haven't changed since the conference in Lawrence, Kansas in 1972 (Semb. *et. al.*, 1972). Behavior analysts can certify themselves or be certified by others. Internal debate can delay certification of behavior analysts by organizations of behavior analysts. However, consumers of the services of behavior analysts are demanding and obtaining regulation of procedures. In addition, employers of behavior analysts are establishing screening procedures to identify skilled job candidates and successful applicants are assumed to have the skills necessary to provide behavior analysis services.

The debate over whether to certify should be over. Certification can be done and is being done. The future debates might more profitably focus on comparisons of the benefits and hazards of the certification systems that are in use. With experience, behavior analysts may become skillful in establishing control systems which protect our clients and make our services more attractive to human services bureaucracies.

Reference Notes

Dardig, J. C. Personal communication and enclosure (Ohio Department of Mental Health and Mental Retardation Executive Order G-10). August 31, 1977.

Fields, Charles. Behavior Analysts working in Minnesota: Telephone survey of all public residential treatment programs. Minnesota Learning Center, Brainerd, MN. 1977.

Grimm, J., Reitz, A., Grimm, B. and Thomas, D. R. *Competency based definition and evaluation of users of aversive and deprivation procedures*. Minnesota Learning Center, Brainerd, MN, 1977.

Grimm, J., Reitz, A., Grimm, B. and Thomas, D. R. *Com-* Criteria for assessing competencies of users of aversive and deprivation procedures. Minnesota Learning Center, Brainerd, MN, 1977.

Jackson, A. and Thomas, D. R. *Career Ladder for Behavior Analysts*. Unpublished manuscript. Minnesota Learning Center, Brainerd, MN, 1974.

Krapfl, J., Adelman, J., Hake, D., Hall, B., Harshbarger, D., Poppin, R., Vargas, E. and Wylie, R. *Recommendations of the MABA Education and Evaluation Committee—1977*. Midwestern Association of Behavior Analysis Conference: Chicago, 1977.

Miller, D. N. State Mental Retardation Facilities and Competencies for Behavioral Procedures. In B. Sulzer-Azaroff (chair). *Symposium: Competency Specification for the Behavioral Practitioner*. Division 12. American Psychological Association Conference: San Francisco, 1977.

Thomas, D. R. Staff Competencies Required for the Implementation of Aversive and Deprivation Procedures. In B. Sulzer-Azaroff (chair). *Symposium: Competency Specification for the Behavioral Practitioner*. Division 12. American Psychological Association Conference: San Francisco, 1977.

Vail, D. J. *Revised Guidelines for Learning Theory-based Training and Therapy Programs in Minnesota State Hospitals*. Minnesota Department of Public Welfare: St. Paul, 1970.

Ward, F. M. Personal communication and enclosure (Final draft Aversive and Deprivation Procedures Regulation). August 26, 1977.

Bailey, J. S. Response to Agras. In Wood, W. S. (Ed.). *Issues in evaluating behavior modification*. Research Press: Champaign, 1975.

Braukmann, C. J., Fixsen, D. L., Kirigen, K. A., Phillips, E. A., Phillips, E. L., and Wolf, M. M. Achievement Place: The Training and Certification of Teaching Parents. In Wood, W. S. (Ed.). *Issues in Evaluating Behavior Modification*. Research Press: Champaign, 1975.

Budd, K. S. and Baer, D. M. Behavior modification and the law: implications of recent judicial decisions. *Psychiatry and Law*. Special Summer Reprint, 1976.

May, J. G., Risley, T. R., Twardosz, S., Friedman, P., Bijou, S. W., Wexler, D., *et. al. Guidelines for the use of behavioral procedures in state programs for retarded persons*. Arlington, Texas: NARC Research Advisory Committee, 1975.

Michael, J., Bailey, J., Born, D., Day, W., Hawkins, R., Sloane, H., and Wood, W. S. Panel discussion: Training Behavior Modifiers. In G. Semb and Associates (Eds.). *Behavior Analysis and Education—1972*. Lawrence, Kansas: University of Kansas (HDFL), 1972.

Nelson, A., Saudargas, R. A., and Jackson, D. A. *Behavior Analysis Certification: How to become certified as a Behavior Analysis specialist*. Lawrence, Kansas: University of Kansas (HDFL), 1974.

Sulzer-Azaroff, B., Thaw, J., and Thomas, C. Behavioral competencies for the evaluation of behavior modifiers. In Wood, W. S. (Ed.). *Issues in evaluating behavior modification*. Champaign: Research Press, 1975.

Thomas, D. R. Training Behavior Modifiers: A Summary and a Proposal. In G. Semb and Associates (Eds.). *Behavior Analysis and Education—1972*. Lawrence, Kansas: University of Kansas (HDFL), 1972.